REMARKS/ARGUMENTS

Reconsideration of this application is requested. Claims 77-145, 151 and 152 are in the case.

I. DOUBLE PATENTING

Claims 77-95, 101-122, 131-143, and 146-151 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-28 of copending Application No. 11/481,255.

Claims 77-120, 123-142 and 146-151 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-27 of copending Application No. 11/481,256.

Claims 77-153 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-23 of copending Application No. 11/980,727.

In response, it is requested that these rejections be placed in abeyance until such time as allowable subject matter is otherwise indicated. At that time, consideration will be given to whether double patenting exists.

II. THE 35 U.S.C. §§101/112 REJECTION

Claims 148-150 and 153 stand rejected under 35 U.S.C. §§101/112 as directed to a use. In response, claims 148-150 and 153 have been canceled without prejudice. Withdrawal of this ground of rejection is respectfully requested.

III. THE ANTICIPATION REJECTION

Claims 77-81, 85-94, 131-143, 146-151 and 153 stand rejected under 35 U.S.C. §102(b) as allegedly anticipated by Mimaki *et al*. Phytochemistry (1996), Vol. 42, pages 1065-1070 (Mimaki). That rejection is respectfully traversed.

Claim 77 provides a method of treatment of a condition associated with raised activity of the enzyme Core 2 GlcNAc-T. The method comprises administering an effective amount of a compound of the formula I to a patient in need thereof.

As now claimed, the condition associated with raised activity of the enzyme Core 2 GlcNAc-T is recited in claim 77 and is selected from an inflammatory disease, asthma, rheumatoid arthritis, atherosclerosis, inflammatory bowel disease, diabetic cardiomyopathy, myocardial dysfunction, cancer, cancer metastasis or diabetic retinopathy, and the cancer to be treated is selected from leukaemia, oral cavity carcinomas, pulmonary cancers such as pulmonary adenocarcinoma, colorectal cancer, bladder carcinoma, liver tumours, stomach tumours colon tumours, prostate cancer, testicular tumour, mammary cancer, lung tumours oral cavity carcinomas and any cancers where Core 2 GlcNAc-T expression is raised above normal levels for that tissue type.

This defined list of conditions find support in claim 146, which has been canceled without prejudice. In addition, the general term "cancer" has been replaced by a list of cancers in which the level of Core 2 GlcNAc-T has been demonstrated to be increased.

Mimaki discloses that certain steroidal saponins appear to inhibit T.P.A stimulated ^{23}P incorporation into phospholipids. However, Mimaki does not disclose (or suggest) that the specific cancers listed can be treated by the compounds as recited in

the claimed invention. In view of this, it is clear that Mimaki does not constitute an anticipatory disclosure of the invention as now claimed. Withdrawal of the anticipation rejection is respectfully requested.

IV. THE OBVIOUSNESS REJECITON

Claims 82-84, 90-1 30, 144-1 45 and 152 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Mimaki in view of Matsuda *et al*., Bioorg. Med. Chem. Lett. (2003), Vol. 13, pages 1101-1106 (Matsuda) and Friedman *et al*., Food and Chemical Toxicology (2003), Vol. 41, pages 61-71 (Friedman). The rejection is respectfully traversed.

As discussed above, Mimaki does not disclose or suggest the invention as now claimed. Matsuda and Friedman do not cure the deficiencies of Mimaki.

The introductory portion of Matsuda states:

> "Recently, steroid saponins have got in scientific attention[sic] because of their structural diversity and significant of the biological activities [sic], such as hypocholesterolemic, antitumour, antidiabetic, antiinflammatory, inhibitory activities against platelet aggregation and cAMP phosphodiesterase, and antifungal."

Steroidal saponins are a very diverse group of compounds in both their steroidal moiety and their sugar moiety(s). However, Matsuda provides no discussion of any particular steroidal saponin in relation to these properties. Matsuda focuses on the use of certain steroidal saponins to treat ethanol induced gastric lesions in rats. Matsuda contains no suggestion of any compound of the formula (I) as being active in any of the conditions now claimed.

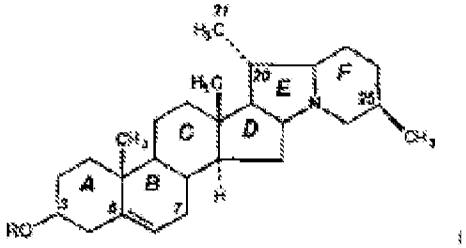
Matsuda does refer to Protogracillin and Trigofoenoside A (compounds 6 and 7), but there is no discussion of any use of either of these compounds in relation to any of the conditions cited in the Action. Matsuda's introductory comments merely state that steroidal saponins have received attention because some of them have been found to be active in particular conditions. This does not imply that all steroidal saponins would be active in all these conditions cited.

Attention in this regard is drawn to Table 2 of Matsuda which shows, for example, that while compounds 1, 2, 3 and 4 appear to reduce gastric lesions caused by ethanol in rats, Parisaponin (5), Trigofoenoside A (6) and protogracillin (7) appear to have little or no activity. Thus, even in this small sample, over various tri, di and tetrasaccharides, there is a range of activities. By way of further example, Wang *et al*. (1996) (of record; further copy attached for convenience), details the effects of 29 diverse steroidal saponins on the motility of sperm. At 2mg/ml, only eleven of the compounds were active (see, page 130, second paragraph of results and discussion).

It is clear therefore that one of ordinary skill, as of the filing date of the present application, would have recognized that steroidal saponins do not all behave in the same way and just because a particular compound is active in a particular assay does not mean it is generally predictive of the entire group of these diverse molecules as a whole. From the disclosure of Matsuda, one of ordinary skill in the art, as of the filing date of the present application, would not have been able to predict that the compounds of the formula (I) would be useful in the treatment of the conditions as recited in the claimed invention.

As noted earlier, Mimaki discloses that certain steroidal saponins appear to inhibit T.P.A stimulated ^{23}P incorporation into phospholipids. Mimaki does not suggest that the specific cancers recited in the claimed invention can be treated by the compounds recited in the claims. In light of this, one of ordinary skill would not have been motivated to combine Mimaki and Matsuda and would not have had a reasonable expectation of success. Even if that combination had been attempted (it is believed that would not have occurred), the invention as claimed would not have resulted or have been rendered obvious thereby.

Friedman is likewise irrelevant to the invention as claimed. Friedman discusses the results of a study in which pregnant and non-pregnant mice are fed a diet containing various steroidal glycosides. In a follow up study, α-chaconine α-solanine, solasonine and α-tomatine were tested for activity on MCF-7 breast cell *in vitro*. Only Solanidine had any effect in the assays. Solanidine is the **aglycone** of α-chaconine and α-solanine, and is not encompassed by the present claims. It is also noteworthy that the glycosylated compounds were inactive (Figure 4, and abstract 3 line from the bottom)



Friedman discloses no effect of any of the compounds cited in any of the conditions claimed. One of ordinary skill would, therefore, have had no expectation of success based on the Friedman disclosure, either taken alone or in combination with Mimaki and/or Matsuda. Withdrawal of the obviousness rejection is respectfully requested.

IV. AMENDMENTS

Claim 77 has been amended to incorporate the conditions to be treated from claim 146. In addition, the term "cancer" has been replaced by the list of cancers treatable from claim 147. Claims 146-150 and 153 have been cancelled without prejudice. No new matter is entered.

Favorable action is awaited.

Respectfully submitted,

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